Key Outcomes
for the
Southeast Subgroup
of the
Atlantic Large Whale Take Reduction Team

April 11-12, 2006
St. Augustine, FL

Prepared by Ellenberg Associates, Inc.
for the
National Marine Fisheries Service

I. Introduction and Outline

On April 11-12, 2006, a subset of the members of the Mid/South Atlantic Subgroup (heretofore referred to as the SE Subgroup) of the Atlantic Large Whale Take Reduction Team (ALWTRT) convened a meeting in St. Augustine, FL. This document summarizes the results of this ALWTRT SE Subgroup meeting, focusing on key issues discussed, decisions made, and next steps identified. It is not intended to be a transcript of all meeting activities. The document is organized as follows:

II. Workshop Objectives, Participants, and Materials

The primary objectives of the meeting were:

1. To update the ALWTRT's Southeast Subgroup on the 2006 temporary gillnet prohibition rule, the January 2006 right whale mortality event, applicable ALWTRP regulations, and requirements for subsequent years;
2. To provide information regarding right whales, particularly Southeast-specific information;
3. To present information regarding current gillnet fishing activities in the Southeast, including effort levels, gear characteristics, and fishing methods; and
4. To provide a forum for the ALWTRT's Southeast (SE) Subgroup to identify, discuss, evaluate, and recommend management measures to the National Marine Fisheries Service (NMFS) for reducing the risk of gillnet fishing activities to right whales in the Southeast U.S. Restricted Area during future right whale calving seasons.

Members of the ALWTRT's SE Subgroup invited to attend this meeting included fishery representatives of the gillnetting industry active in the area from North Carolina (NC) to Florida (FL) and all other members of the SE Subgroup. All other interested ALWTRT members and local fishery representatives were welcome to attend the meeting. Invited SE Subgroup members in attendance included: Regina Asmutis-Silvia (The Whale and Dolphin Conservation Society), Mike Baker (FL shark and coastal gillnet fisherman), Diane Borggaard (NMFS Northeast Regional Office (NERO), David Cupka (South Atlantic Fishery Management Council), Carl Erickson (FL coastal gillnet), David Laist (Marine Mammal Commission), Charlie Locke (whiting fishermen and serving as an alternate for David Beresoff), Clay George (Georgia Department of Natural Resources), Scott Kraus (New England Aquarium), Rick Marks (North Carolina Gillnetters), William McLellan (University of North Carolina-Wilmington), Fentress "Red" Munden (NC Division of Marine Fisheries), Tom Pitchford (Florida Fish and Wildlife Conservation Commission), Rich Seagraves (Mid-Atlantic Fishery Management Council), Al Segars (South Carolina Department of Natural Resources), Cyndi Taylor (Wildlife Trust, and alternate for James A. Powell), Sierra Weaver (The Ocean Conservancy), Sharon Young (The Humane Society of the U.S.), and Barb Zoodsma (NMFS Southeast Regional Office (SERO). ALWTRT SE Subgroup invited members that were unable to attend included Erin Heskett (International Fund for Animal Welfare), Greg Silber (NMFS Office of Protected Resources), and Lindsay Fullenkamp (Atlantic States Marine Fisheries Commission). Greg DiDomenico participated as an interested ALWTRT member.

NMFS staff participating in an advisory capacity included: David Bernhart (SERO), Vicki Cornish (SERO), Juan Levesque (SERO), Laura Engleby (SERO), Michael Clark (Office of Sustainable Fisheries, Highly Migratory Species (HMS) Management Division), John Kenney (NERO), Jamison Smith (NERO), Karen Raine (NOAA General Counsel), Cheryl Scannell (NOAA General Counsel) (via phone) and Parks Lewis (SERO Contracted Fishery Liaison).

The meeting was facilitated by Kristy T. Ellenberg and Andrea Anders of Ellenberg Associates, Inc.

Meeting materials and presentations are available to ALWTRT members from Kate Wells, NMFS SERO, upon request. Kate can be reached at Kate.Wells@noaa.gov or (727) 551-5776.

III. Key Outcomes

A. Ground rules

The facilitator reviewed the ALWTRT's ground rules concerning decision making, addressing media inquiries, meeting summaries, and public comment.

B. Briefings and Updates

The SE Subgroup meeting included a series of informational briefings and updates provided by ALWTRT SE Subgroup members and NMFS staff.

1. Overview of ALWTRP as it relates to the Southeast U.S.

Diane Borggaard explained that there are two regulated gillnet fisheries in the Southeast, as identified in the Marine Mammal Protection Act (MMPA) List of Fisheries. These are the Southeastern U.S. Atlantic shark gillnet fishery and the Southeast Atlantic gillnet fishery.

a. Southeastern U.S. Atlantic Shark Gillnet Fishery. Shark gillnets are defined as 5" or greater stretched-mesh. Shark gillnetting is allowed in the SE Observer Area with an observer, and gear marking is required. Shark gillnetting is not allowed in the SE U.S. Restricted Area from November 15-March 31, except as provided for strikenets:
    1. No nets set at night or when visibility is less than 500 yards
    2. Each set is made under the observation of a spotter plane
    3. No net is set within 3 nautical miles of a right, humpback, or fin whale
    4. If a right, humpback or fin whale moves within 3 nautical miles of the set gear the gear is removed immediately from the water.

b. Southeast Atlantic Gillnet Fishery. Includes fishing with any type of gillnet gear for any species (except shark gillnets south of the South Carolina/Georgia border) in Atlantic waters south of the North Carolina/South Carolina border. No straight sets are allowed at night in the SE Restricted Area during November 15-March 31.

Borggaard also presented information on the draft Environmental Impact Statement (DEIS) and proposed rule for modifications to the ALWTRP (see 70 FR 35894, June 21, 2005). The final rule will implement the management measures under one of the alternatives identified in the DEIS and proposed rule. Most of the new management measures will be effective six months after publication of the final rule in the Federal Register.

c. SE Gillnet-related measures in the DEIS and proposed rule. Highlights from the preferred alternative relative to the SE U.S. gillnet fisheries include:
    1. Require broad-based gear modifications in the Southeast Atlantic gillnet fishery
    2. Require Vessel Monitoring System in lieu of 100% observer coverage for the shark gillnet fishery
    3. Extend measures out to the EEZ (beyond the 80º longitude line)

4. Modify restricted dates and areas to:
    i. November 15 through April 15 north of 29º latitude
    ii. December 1 through March 31 south of 29º latitude
5. Change the names of the Southeast management areas.

The proposed time/area management measures were developed based on right whale location data and information on seasonal use of the Southeast U.S.

2. Update on Temporary Rule

Barb Zoodsma presented information on the right whale calf that was reported dead on January 22, 2006, and explained how this information led to NMFS' publication of a temporary rule closing the Southeast U.S. Restricted Area to gillnet fishing through March 31, 2006 (71 FR 8223, February 16, 2006). The presentation summarized the results of the necropsy of the calf and other relevant information, including histological analyses, interpretations of the most prominent wounds, a trajectory analysis of carcass drift, and all known sightings of the calf and its mother during the 2005/2006 calving season prior to the calf's death.

The final necropsy report (Moore 2006) included aerial images of the dead right whale calf showing a dorsal wound, an eroded fluke notch, and diamond and criss-cross patterns on the left peduncle. Blubber thickness measurements indicated that the calf was in good body condition relative to other dead right whale calves; consequently, starvation could be ruled out. The digestive system was empty, indicating the calf had not fed for some time prior to death.

Photos from January 8, 2006, showed a possible bullet buoy trailing the animal's flukes, as well as lesions with criss-cross and diamond-shaped patterns, other scarring, and cyamids (whale lice). The diamond-shaped patterns were similar in appearance to marks seen on other known entangled animals. Although measurements of the diamond-shaped lesions were reported in the necropsy report, exact mesh size was undeterminable, as the whale and/or net could have twisted during entanglement. Wounds of different lengths and depths were observed on the carcass. Additional wounds and lesions were noted in the necropsy report, and were attributed to predators (likely sharks) and human sources (caused by towing the whale ashore). Histological findings showed no evidence of major disease.

The sighting history of the calf and its mother showed that all calf sightings were exclusively within the SE U.S. and in recent weeks prior to the calf's death, exclusively within the SE U.S. Restricted Area. The sightings data and calf's size also suggest the calf was approximately 2 months old. Aerial survey data indicate the calf was last seen with its mother on January 11, 2006.

The specific time of death reported in the necropsy report was within the range of 3-6 days prior to necropsy. This estimate was based on the condition of the whale's carcass and environmental conditions at the time. Thus, the NOAA Haz-Mat group prepared a 6-day drift analysis. The Haz-Mat projections looked at ocean currents and hourly wind data to create the carcass drift map. It was noted that since the Gulf Stream is typically too warm for right

whales, more weight should be placed on the northern portions of the contours as the likely location where the calf died. Based on this, the analyses suggest that the calf was most likely inshore and north of where the carcass was found, placing the calf within the SE U.S. Restricted Area when it died.

Gillnetting activities were observed in the same area where the mother/calf pair were sighted during the weeks prior to the calf's death and where the calf's carcass was found .

Zoodsma distinguished between proximate and ultimate causes of death and discussed how these related to the determinations regarding this calf. The proximate cause of death, which looks at the mechanistic failure resulting in the death of the animal, remains open. However, the ultimate cause of death considers the events leading to, and eventually resulting in, death. The necropsy report noted the following relative to the ultimate cause of death:

> "… *given the apparent pre-mortem shark and net entanglement damage to the peduncle, in the absence of any other significant information, the most parsimonious hypothesis is that these injuries were sufficiently serious to initiate the demise of the case.*" (Moore 2006)

Zoodsma explained that NMFS' determination, as outlined in the temporary rule, was that the mortality of the right whale calf was as a result of entanglement in gillnet gear in the Southeast U.S. Restricted Area. This determination was based on the results of the necropsy, the sightings history, evidence of gillnet fisheries operating in the area, and the absence of other significant explanatory findings. This determination triggered the ALWTRP regulations at 50 CFR 229.32(g)(1), that state::

> *"If a serious injury or mortality of a right whale occurs in the Southeast U.S. Restricted Area from November 15 through March 31 as a result of an entanglement by allowed gillnet gear, then the Assistant Administrator shall close that area to that gear type for the rest of that time period And for that same time period in each subsequent year, unless the AA under paragraph (g)(2): revises the restricted period, or other measures are implemented."*

Zoodsma and David Barnhart then explained that the Assistant Administrator had closed the area for the rest of the season under the temporary rule, but that additional, separate rulemaking would be required by NMFS to further manage gillnetting activity in the Southeast during future calving seasons, and that input from meeting participants was being solicited regarding the potential management measures that might be implemented in future rulemaking.

3. Discussion on morning presentations

At the conclusion of the Borggaard and Zoodsma presentations, a question and answer session was conducted. The following summarizes key issues discussed during this session:

- A question was raised regarding how long a mother typically will stay with her dead calf. Although information is limited, some mothers have been seen "upset" when their calves have been struck by a ship. In one incident where a calf's flukes were cut off, the mother stayed with the calf for 10 days as the calf could still swim.
- One participant noted that carcass handling during recovery needs to be improved so that there is less damage to the carcass. Damage made aspects of the necropsy uncertain and unclear. Photos taken before the whale was towed ashore showed much more detail regarding the lesions around the peduncle. Unfortunately, there was significant predator damage to the region after the time of death and before the whale could be brought ashore.
- One participant asked about possible next regulatory steps under various scenarios:
    - NMFS could make the closure permanent under (g)(1) or adopt alternative protective measures pursuant to (g)(2). To move forward with regulatory actions under (g)(1) or (g)(2), NMFS would consider the SE Subgroup's recommendations, coordinate with the full ALWTRT, proceed with a proposed rule and public comment, and make actions compatible with the DEIS. Recommendations provided by the SE subgroup, particularly consensus based, would help NMFS in formulating future management measures.
    - If no recommendations are made by the SE Subgroup, then NMFS may still take action, which could possibly include a closure of the SE Restricted Area to fishing during the restricted period in subsequent years or some other action that provides comparable conservation benefits.
    - If NMFS takes no action, there would be no additional restrictions other than those outlined in the larger DEIS/proposed rule process being coordinated by NMFS' Northeast Regional Office because the temporary rule implementing the gillnet closure in the southeast U.S. restricted area has expired.
- It was noted that management decisions have economic impacts on the fisheries.
- One participant pointed out that whiting gillnet gear was used during the time and in the area where gillnet observations were reported. However, whiting gear uses 2 ¾" mesh net and could not have been responsible for the injuries on the calf because this appears to be smaller mesh than the net that left the diamond-shaped lesions on the calf.
- Some participants expressed their concern that illegal fishing in the area may have caused the whale's death and (g)(1) therefore, should not have been invoked in issuance of a temporary rule. These individuals requested that NMFS specify the particular gear type responsible for the calf's mortality. The determination should pinpoint the fishery responsible rather than shut all fisheries down.
- Some participants noted gillnetting in and of itself poses risk, regardless of mesh size. Small mesh gillnet fisheries in the Southeast Atlantic are managed collectively as a single fishery under the ALWTRP.
- Questions were asked regarding cyamid observations on the calf from the aerial photo. Cyamids are common in the first month of a calf's life when the animal is shedding skin, and are also common with wounds and debilitation. The aerial photo did not show excessive amounts of cyamids present in the opinion of one scientist present at the meeting.

- Additional questions were raised regarding the date of the draft gross necropsy report and the extent of intra-agency consultation regarding the rule prior to its publication.
    - The date of the draft gross necropsy report was February 1, 2006. After undergoing peer review, it was finalized on April 10, 2006, and distributed to the team during the first day of the meeting.
    - The Northeast Regional office had an opportunity to review and comment on the proposed rule.

4. Right Whale Status, Habitat, and Dive Characteristics

Status. Barb Zoodsma presented information on the stock status of right whales and their critical habitat. Zoodsma noted that the right whale is listed as endangered under the Endangered Species Act and depleted under the MMPA. With a population of approximately 289 individuals, the potential biological removal (PBR) for right whales is zero; however, the average annual rate of known human-induced mortality is 2.07 (Waring *et al.* 2003).

Three critical habitats have been designated for right whales, including: Cape Cod Bay, the Great South Channel and the SE calving area. The SE calving area is significant for species recovery because it is only known calving area for right whales.

Habitat. Cherie Keller presented preliminary information on right whale habitat analyses by Lance Garrison, SEFSC, and scientists (including Keller) from Florida Fish and Wildlife Conservation Commission. Aerial surveys from 1992 to present were used to investigate the distribution of right whales relative to environmental characteristics within the SE calving area.

Whales actively move to water temperatures they prefer (Keller et al. 2006). Right whales appear to distribute themselves differently in cold and warm calving seasons. Whales were concentrated further south in colder years than warmer years. A model was generated that predicts the distribution of right whales relative to depth and sea surface temperature.

Dive Characteristics. Doug Nowacek, Florida State University, presented preliminary findings from a DTAG project that he conducted during January 2006 off Georgia and Florida. DTAGs are acoustic recording tags that, once attached to right whales, log information on right whale swimming and diving behavior, including pitch and roll. Only five animals in the Southeast Region have been fitted with DTAGs to date, with the longest tag attachment of 18 hours. Most right whale dive down to 5-10 meters, although one animal showed prolonged dives to the bottom. Additionally, there was some evidence of a tag being knocked off as the whale scrapped the ocean bottom. Only one animal was tagged during night. One animal was tracked overnight, and there was no distinguishable difference in this animal's night and day time behavior. It is unlikely that whale dive behavior was artificially influenced by vessel or other research activity.

5. Discussion on Right Whale information

At the conclusion of the Zoodsma, Keller, and Nowacek presentations, a question and answer session was conducted. The following summarizes key issues discussed during this session:

- Right whale range may expand as population recovers. Although a mother/calf pair appeared to spend the season off SC last year (Glass et al. 2005), it is unknown if this is typical or a new pattern due to limited survey efforts. Water temperature appears to serve as the strongest variable in determining mother/calf distribution.
- The depredation rate and natural mortality of, right whale calves is unknown, particularly, during late pregnancy of the mother or immediately following birth. According to team members, once a calf has been documented with its mother, it has a ~95% rate of being re-sighted, and survival is high for calves reaching six months of age.
- Tagging permits for mother/calf pairs are not generally issued.Therefore, opportunities to learn about mother/calf dive profiles do not currently exist.
- The habitat model, based on optimum sea surface temperature and depth, would predict the right whale's range to include areas further north, off NC and SC. Thus, other variables might also be influencing whale distribution. The habitat model was not designed for use in dynamic management.
- Limited Navy acoustical research shows that right whales in the SE are more vocal at night.

6. Overview of Southeast Gillnet Fisheries

A series of presentations provided an overview of what was known about SE gillnet fisheries, and discussions ensued to provide additional information about actual fishing practices.

Landings. Juan Levesque, NMFS SERO, presented an overview of 2000-2005 (through November 2, 2005) Northeast Florida gillnet fisheries statistics collected by the state of Florida. Six vessels target sharks and approximately 50 vessels target coastal pelagics, such as Spanish mackerel and kingfish, or demersal fish species, such as whiting. There are three fishery-reporting areas within the SE U.S. Restricted Area: Jacksonville, St. Augustine, and Cape Canaveral. Jacksonville and Cape Canaveral were the most important fishery reporting areas, with much less effort and landings occurring in St. Augustine.

Annual gillnet landings in Cape Canaveral, for all species combined, declined for the reporting period from just under 1,400,000 lbs in 2000 to roughly 300,000 lbs in 2005 (again, these reported landing levels do not include landings that occur South of Cape Canaveral). Annual gillnet landings in Jacksonville were somewhat consistent in the early 2000's, with annual landings at approximately 200,000 lbs, until landings increased to just under 400,000 lbs and 600,000 lbs in 2004 and 2005, respectively. Annual landings for St. Augustine was less than 200,000 lbs throughout the reporting period. Similarly, the number of annual gillnet trips decreased in the Cape Canaveral area throughout the reporting period and increased in the Jacksonville area for 2004 and 2005.

Information was then presented on saltwater products licenses (SPLs), which are required to land fish in Florida. Discussions indicated that SPL permits may not be the best gauge of the efforts of the fishery because SPLs are issued for both individuals and vessels, and some people hold multiple permits. Thus, the number of SPLs will be larger than the number of individuals for a fishery. Splitting catch between SPLs could increase the number of active SPLs.

During the timeframe November to March, the most important species landed by gillnets are Spanish mackerel, whiting, and shark. Landing reports indicate that Spanish mackerel are landed predominantly in November (just under 700,000 lbs landed) with some landings in December and March (<100,000 lbs each month) coinciding with winter and spring Spanish mackerel runs. Whiting are landed January-March. Landings within the SE U.S. Restricted Area are generally decreasing, with the exception of whiting, which is increasing and peaks in March.

The fishermen believed that whiting landings from February 15 to March 31 were underestimated, and also noted that the 2006 closure would have affected this time period. There were questions asked as to whether landings of whiting were accounted for, and the adequacy of the economic analyses in the Environmental Assessment accompanying the temporary rule.

Shark Gillnet Fishery. Mike Baker showed samples of nets and rigging used in the shark gillnet fishery. A large nylon mesh net is used for sharks. It can be set in a straight line and sets are two hours long. In the summer, a five-inch mesh with a light lead line can be used in 40 feet of water to fish for sharpnose sharks, and may be fished all night. This year, Baker was experimenting with shorter monofilament stab nets for targeting finetooth and blacknose sharks. This fishery also uses strikenetting, where the nets are run in a circle with an 80-pound breaking strength. All driftnets must be under 2,800 yards in length. Strikenetting uses shorter, 1,500-yard nets.

Shark gillnet fishermen constantly tend their nets, and are subject to the ALWTRP gear marking requirements. Nets are in the water for short periods of time. Within the SE U.S. Restricted Area during the restricted period, federal observers are placed on 100% of all directed large coastal shark driftnet trips. VMS is also required under the HMS regulations.

There is a 4,000-pound trip limit in the shark fishery. Due to this limit, gear may be left in the water with another boat while fish are landed. Double striking may occur where two boats strike together and add catch to each other's boats.

From January 1 to March 15, sharks are generally south of the SE U.S. Restricted Area. During this time, fishing for large coastal sharks takes place in the SE U.S. Observer Area from Fort Pierce to Salerno.

Spanish Mackerel. Carl Erickson, a Spanish mackerel fisherman, indicated that Spanish mackerel are targeted from September to December until water temperatures drop below 69 degrees. A minimum 3 ½" stretched-mesh net is used. Each boat can carry two 800-yard

nets. Nets must be set one net at a time and may be set for up to one hour each. Nets are marked, actively fished, and can be removed from the water within 30 minutes.

Occasionally, fishing is done at night with a technique called firefishing. This technique uses the phosphorus of jellyfish as a guide to actively strike around schools of Spanish mackerel. Firefishing uses mesh that is smaller than 5" and typically occurs in mid-November.

Rising bait and fuel prices are impacting the fishery. Some may use shallow nets of up to 3 feet to catch bait and increase profitability, although the regulations require that catch used as bait should be reported.

Spanish mackerel regulations limit landings to 3,500 pounds maximum per day from April 1 through November 30, and from December 1 until 75% of the quota is taken, daily landings are, for the most part, unlimited. These trips usually catch 1½ pound to eight pound fish. Thirty to thirty-five Spanish mackerel boats are active in November and December. In the six days after the fishery re-opened in 2006, 160,000 pounds of Spanish mackerel were landed.

Fishing occurs within the restricted area within 8 miles of shore typically in 15 to 60 feet of waters.

There was a discussion on the location of the fish and the timing of the right whale migration. The two species may not overlap due to differences in water temperature preferences. Spanish mackerel prefer water temperature $\geq 69^{o}F$ and migrate southward for warm water at the same time that right whales, preferring cooler water temperatures, are migrating further south along Florida's Atlantic coast..

Whiting Fishery. Charlie Locke, a gillnetter from NC, explained that the Northeast Florida whiting sink gillnet fishery was started in late February of 2004, beginning with only 8 boats and expanding to approximately 15 boats. Previously, these fishermen had mostly caught shrimp and blue crab off NC. From January 1 to April 1, there is some whiting effort out of NC. This fishery is market driven and effort is capped by limited demand for the product. The product is marketed in NC, SC and GA.

The catch is almost exclusively whiting, also known as Southern Kingfish, and the area fished most heavily is about 4 to 5 miles Northeast of Mayport on hard bottom areas in 60-70 feet of water. Nets are set in ~300 yard sections. An individual boat may set multiple sections of net, up to a total of 2,400-2,800 yards. The typical catch is 1,000 lbs fish per 300 yards of net section. This is bottom-oriented fishing. Fishing methods are the same with all vessels except with some variation on the method of retrieval. The majority of fishermen use a net reel that winds the net up from the bottom, clearing fish as the net is retrieved. A few boats use net takers that allow the net to be brought in with fish still in the nets. Soak times average between 4-6 hours, but vary according to the amount of fish in the gear. The gear is cleared and reset repeatedly until sundown. Some gear may be left overnight, as long as it is not a straight set. Gear can be removed from the water in 1-1½ hours in the event of a storm. Fishermen noted that they would not be able to remove all the gear in the event a whale was sighted within 3 nmi of nets because of the amount of gear in the water.

While some whiting gear varies slightly between fishermen, the majority of whiting fishermen use weighted nets, under 3" mesh size, with an average size of 2 5/8" and an average twine size of 57 mm. Top lines are 5 1/6" twisted poly with buoy lines and sinking lines. Approximately 300-400 yards of net are used, and these nets are set on the bottom, with a height of approximately four feet. There is minimal bycatch of other fish in this fishery. Boats typically stay within close proximity of their nets, but may deploy multiple separate net sections over the fishing grounds. This fishery uses breakaways/weak links in nets.

This fishery is confined to a small hard bottom area off Mayport, FL, and has operated without reported incident during parts of three calving seasons in right whale critical habitat. The whiting fishery cannot move further offshore because of small boats used, deep waters, and where the fish are located.

The whiting fishermen expressed that new rules are needed for this new fishery. Appropriate anchor size was discussed. The 22 lb anchor requirement proposed for gillnet vessels in the mid-Atlantic might be a safety issue for smaller boats. Smaller, 8 lb anchors would be safer for smaller boats. Fishermen felt night sets were needed to be able to clear nets.

7. Related Fisheries Regulations and Observer Roles

Georgia State Regulations. Clay George, Georgia Department of Natural Resources, presented information on Georgia gillnetting regulations. Under Georgia law, a gillnet ban has been in place since the 1950s. Since 2000, no fish can be landed with gillnets in the State of Georgia. Fishermen cannot transfer fish at sea inside of three miles of Georgia waters. For shad and sturgeon, no gillnetting is allowed east of the COLREGS line.

Georgia has pushed for a gillnet ban in federal waters off Georgia since 1992 for several reasons. Gillnet bycatch impacts the state's sportfishing industry, and also impacts protected resources. The allowance of gillnets in federal waters is difficult for the state to enforce and the federal observer program is seen as ineffective.

Florida State Regulations. Mark Robson, Florida Fish and Wildlife Conservation Commission, presented an overview of Florida's state gillnetting regulations. In 1995, a Constitutional amendment prevented the use of gillnet gear in the Atlantic coast of Florida. No gillnets or entangling nets are permitted in state waters. Non-entangling nets like shrimp trawls and cast nets for Spanish mackerel and mullet are allowed. From shore to one mile offshore, nets are limited to a total of 500 square feet with a 2" minimum mesh.

The State of Florida does have several concerns regarding gillnetting. As a member of the South Atlantic Fishery Management Council, Florida wants more information on what is happening with the shark drift gillnet fishery, but it has not taken a position at this time. The focus of Florida concerns is the bycatch issue.

Observer Roles. Vicki Cornish, NMFS SERO, spoke briefly about the observer program and the roles of observers. The role of observers is to collect objective information on marine

mammals, catch and other data, and to look at oceanographic operations. Observers do not serve a regulatory or compliance function, but merely observe; they are not to assist in fishing operations by helping with sorting catch or other tasks.

Observers are covered for injuries that occur during the fishing activities by insurance provided by their employer. Fishermen may carry additional insurance. Coast Guard safety decals are required for all fishing vessels participating in observed fisheries.

Highly Migratory Species (HMS) Regulations. Mike Clark, NMFS Highly Migratory Species Management Division, presented information on regulations in 50 CFR Part 635 specific to gillnet gear and the shark fishery, including provisions on gear operation and deployment, VMS, seasons, quotas, permitting and reporting. Regarding gear operation and deployment:

- No person may fish with a gillnet with a total length greater than 2.5 km.
- Provisions on gear deployment for the Southeast U.S. shark gillnet fishery to implement the ALWTRP are set forth in 229.32.
- Gillnet must remain attached to the vessel at one end, except during net checks.
- Both the observer and vessel operator are responsible for sighting whales. If a whale is taken; fishing must stop, and NMFS must be contacted immediately.
- Net checks must be conducted every 0.5-2 hours to look for and remove sea turtles, marine mammals, or smalltooth sawfish. Sawfish shouldn't be removed from water.

VMS is required for all vessels with a directed shark permit and gillnet gear onboard between Nov. 15-March 31 each year, regardless of fishing location.

Currently, five to six vessels operate in the directed shark fishery. These vessels are subject to 100% observer coverage from November 15 to March 31 in the SE U.S. Observer Area, with approximately 30% coverage at other times.

The sink gillnet fishery recently has been included in observer coverage outside of the right whale restricted period, including vessels targeting non-HMS, or fishing with sink gillnets.

Seventeen vessels possess both Spanish mackerel and directed shark permits and reported landing sharks between 1999-2004. In the whiting fishery, there are three directed shark permit holders.

C. Dialog Session on Briefings and Updates

At the conclusion of the presentations, the facilitator asked team members to identify the key issues to be considered and addressed by the group. This list of issues and comments was not a consensus-based summary of the team, but rather contributions generated by individual team members.

Regulatory Concerns

- Separate out the whiting fishery and create a new set of rules to govern it.
- Establish sub-zones by area with different opening and closing periods.

- Temporary rule was done on short notice, with no comment or advance notice to the fishing industry.
- No gillnets are allowed in most of the Northeast critical habitat, but they were allowed in the Southeast because the TRT believed they were fished differently/actively.
- Rule impacted all gillnets in the area rather than a specific gillnet fishery.

Risk Assessment Questions
- Consider differences in potential risk among fisheries, gear types and practices
- Consider distributional data for right whales
- Poor understanding of fishery effort and risk associated with it

Gear Issues
- Need to determine criteria/types of gear that would create less risk to right whales in the Southeast calving grounds
- Characterize fisheries and allowable gear in critical habitat
- Gillnets & vertical line issues
- Need to know what type of gear was responsible for this death

Enforcement Issues
- Is the plan working, and does it need modifications? Can it function in new situations and as new fisheries develop?
- Was this death an enforcement issue? Was it caused by legal or illegal gear?

Research issues
- Missing data
- Inability to get permits for DTAG (acoustic recording tags) program
- Inability to respond to carcasses and conduct necropsies appropriately due to lack of funding

Communication issues
- Better communication needed between NMFS and all fishermen and constituents.
    - No advanced notification to fishermen and other constituents about emergency rule
- Better communication needed between the fisheries to manage what the fishermen are doing

Whale Considerations
- PBR for right whales is zero
- Right whales are also listed under the Endangered Species Act
- Right whale mothers and calves in the SE are the most vulnerable segments of the population.
- Endangered humpback whales, which also have mortality and serious injury levels greater than PBR, have been observed during aerial surveys in this area and are also at risk of entanglement.

- Gillnetting is not allowed in the right whale critical habitat areas of the Northeast because of acknowledged entanglement risks
- In this incident, a right whale calf has been entangled in a gillnet, and serious injury or mortality has occurred as a result of that entanglement.

Fisheries Considerations

- The economic impact of regulatory actions
- Economic impact analysis does not reflect implications beyond the current season.
- Buy backs as a possible option
- Characterize fisheries in critical habitat
- Poor understanding of fishery effort and risk

This list was used to develop the following question, which would be used to frame subsequent discussions:

How could the team eliminate risk to right whales while considering economic impacts on fisheries?

D. Identifying Preliminary Proposals for Management Measures

1. Stakeholder group preliminary proposals

Stakeholder groups presented two preliminary proposals to the SE Subgroup.

Preliminary Whiting Fishery Proposal. This proposal, presented by fishing industry representatives, would create the following regulations to manage the whiting fishery from November 15 to March 31 in the SE U.S. Restricted Area north of 29ºN latitude:

- 28 net panel maximum (2800 yards)
- Prohibit nets with 3" or greater stretched-mesh
- 8-pound anchors will be attached to both ends of string
- Nets will be a maximum of 25 meshes deep
- Use sinking buoy lines
- Gear marking requirements
- 600-pound weak links mandatory
- Nets will be actively fished until all gear is out of the water
- No nets will be set out at night, gear haulback must begin at least 1 hour prior to sunset
- Observer coverage for whiting fishery
- Increase enforcement activity in the area
- Research

Preliminary Proposal to Restrict Gillnetting. This proposal, presented by environmental organization representatives, would limit or eliminate gillnets in the SE U.S. Restricted Area from November 15 to March 31 as follows:

- Prohibit gillnets north of Brevard County/Sebastian Inlet
- Allow Spanish mackerel fishery south of Brevard county line/Sebastian Inlet outside of January 1 to March 31 timeframe

- Due to limited survey effort in southern part of management area, time and area boundaries may need to be modified as more sighting data are collected.

Supporting comments from other SE Subgroup members for this proposal to limit gillnets included:

- NMFS determined gillnet was involved in this mortality event
- Discrepancy with mesh size is a fishery management issue
- NMFS does not have ability to enforce fisheries in the critical habitat
- NMFS cannot prevent new fisheries from emerging
- Loss of a single right whale is critical

A map was referenced to examine the various boundaries in these proposals, and there was consensus among the group to use 29ºN latitude as a management area boundary line.

2. Small Group Discussions

Two small groups were formed to facilitate greater discussions among stakeholders.

Group One. A summary of key points discussed in this group were as follows:

- Concerns:
  - The area discussed is calving area critical habitat and essential to right whale recovery. Management must be very conservative in this area and be concerned about any type of gear in the water.
  - There is the possibility that fisheries would continue to emerge in this area and cause further impacts to right whales. In this case, the whiting fishery emerged rapidly, with little to no notice, unknown to NMFS, and with limited management measures in place.
  - The closure was a result of the "one-strike rule" that had been written into the regulations. Meaning, gillnetting would be allowed in the area until a right whale was seriously injured or killed. If this happened, the area would be closed to gillnetting.
  - Enforcement resources are limited, and the group discussed how to prevent illegal fishing in the area with efforts that are easier to enforce. The group also noted enforcement efforts could be more effective with higher monetary penalties, however, these penalties are limited statutorily. The group did note that seasonal right whale aerial surveys should not be considered an enforcement tool.
  - Closures are the easiest measures to enforce since the Coast Guard does not generally pull gear to test for compliance.
  - Although whiting gillnet occurs relatively low to the substrate, the vertical lines are considered a serious threat to right whales.
  - Disentanglement is not reliable and should not be viewed as a viable management tool.
  - The small, confined area off Mayport where whiting are found is, unfortunately, in the middle of an area used heavily by right whales.
  - This is not a closed fishery and could continue to expand and increase risk as more fishermen participate.

- Management options discussed:
  - Adopt a gear-based management approach to prevent new gillnet fisheries from emerging.
  - Try strikenetting for whiting.
  - Manage whiting fishery as an experimental fishery so that it can be strictly regulated, tried for a short term, and permits could be limited. However, it's questionable to authorize an experimental fishery when PBR=0.
  - Limit entry in the fishery to control/reduce number of participants in fishery.
  - Measures would need to be easily and effectively enforced due to limited enforcement resources.

Group Two Summary. A summary of key points discussed in the group were as follows:

- Comments/Concerns:
  - Two bait-fishing boats, targeting spot and croaker, are known to work outside of state waters north of 29ºN latitude. They use 3" mesh nets that are 22 meshes high. Soak time is two hours. These vessels will be affected by any management measures.
  - Clarifications were made by the group on the gear in the initial proposal, including discussion on soak time and tending of nets.
  - Should convey real-time right whale sightings to the fishing fleet.
  - Reallocate observer coverage from shark fishery to other gillnet fisheries
  - Consistency with pending ALWTRP modifications is desired. Also provides for easier enforcement.
  - The nature of whiting gillnetting is preferred over other types of gillnetting, however, this area is critical to right whales.
  - Gillnets should be prohibited up to NC/SC border from November 1 to April 15 because of calves.
- Management options discussed:
  - Stipulate that gear must be removed from water if a whale is sighted nearby.
  - Use alternative techniques for catching whiting.
  - Limited entry in the fishery to control/reduce number of participants in fishery and cap the number of nets.
  - Stipulate that gear must be removed from water 30 minutes before sunset.
  - For the area of Cape Canaveral to Sebastian Inlet, fishermen need to fish in March, but would be willing to give up January and February, if necessary.
  - Closure proposed by environmental group should be February 28 instead of March 31 for area south of 29ºN latitude.

Synthesis. Based on the two proposals and small group discussions, the following were seen as potential management options for the group to discuss:

1. No gillnets from November 15 to March 31 in the SE U.S. Restricted Area north of 29ºN latitude.
2. New technology for the whiting fishery, which may include strikenetting.
3. Regulate whiting gillnet fishery with restrictions as outlined in preliminary proposal by fishermen.
4. Gillnet closure with an exception for an experimental fishery.

5. Effort reduction and/or limited access

E. Team Recommendations

The group identified the following three criteria as critical to evaluating proposals: the impact to fisheries, the impact on right whales, and enforceability. NMFS commented on their role in the process, noting it would consider the team's recommendations and discussions, along with other alternatives presented, and apply them against the requirement to make a determination under 50 CFR 229.32(g)(2).

1. SE U.S. Restricted Area south of 29ºN latitude

The SE Subgroup came to consensus on the following fishing restrictions for the portion of the Southeast U.S. Restricted Area referred to as south of 29°N latitude, which represents an area south of a line drawn from the shore eastward at 29°N latitude, to the current eastern boundary of the Southeast U.S Restricted Area, and extending to the current southern boundary of this area. This area should be closed to gillnetting with the following exceptions:

- From November 15 to December 31, and from March 1 to March 31
  - Codify the Spanish mackerel regulations within ALWTRP
    - 800 yards of nets
    - Up to two nets per boat
    - 1 net in water at a time
    - 1 hour soak time by the end of the set
  - No setting of nets within 3 nautical miles of whales
  - Remove gear if whale moves within 3 nmi of the gear
  - No night fishing
- Existing ALWTRP shark strikenet provisions and requirements as currently written.

Discussion points:

- Ability to fish in December and March is important economically for the mackerel fishery, and there are fewer whale sightings south of 29° during these months.
- Temperature preferences/requirements of right whales and mackerel seem to separate the species in time and space.
- Quick removal of gear is possible in the event a whale is spotted.
- Fisheries operating in this area have not had any reported incidents with right whales.

2. SE U.S. Restricted Area north of 29ºN latitude

There were several options discussed for the area north of 29°, which represents an area north of a line drawn from the shore eastward at 29°N latitude, to the current eastern boundary of the Southeast U.S Restricted Area, and extending to the current northern boundary of this area. However, the team could not come to consensus on any of the options discussed. Each option discussed is detailed below.

Option 1 – Allowing the whiting fishery to operate, with some additional restrictions:

- Area closed to gillnetting from November 15 to March 31, with the following exceptions:
  - Small mesh gear (less than 3" stretched-mesh) only
  - No more than 25 meshes deep
  - Weak links in head rope
    - Up to 5 weak links per panel
    - 1100 pound breaking
  - Buoy lines—sinking line with 600 pound weak links
  - 8 pound Danforth anchors on each end
  - Active fishing only
  - No nets set at night
  - Observers required
  - Gillnets must be marked
  - Up to 28 panels or 2800 yards per boat

Discussion points:

- This proposal was endorsed by the commercial fishermen represented on the team.
- Some team members felt the death was the result of shark fishermen operating in the same area and using larger mesh than whiting fishermen.
- Several team members were concerned this proposal would not sufficiently reduce risks to whales posed by gillnet gear, particularly vertical lines.
- There is not enough data to evaluate if this proposal reduces risk to whales.
- Whiting is a market-managed fishery, and some team members believe that the fishery will not grow substantially in the area.
- An effective whiting fishery has not been located outside of critical habitat, but the fishermen also acknowledged that little effort has gone into looking outside of critical habitat for the fish, in part because of smaller boat sizes and safety issues.
- The whiting fishermen also said they needed to be able to tend gear until out of the water, even if that meant gear remained in water for some period of time after sunset; however, they could incorporate provisions to begin actively pulling nets before sunset.
- The whiting fishery noted safety concerns using a larger 22 lb anchor (as would be required by the proposed rule for the ALWTRP) because of the smaller boat size of this fleet. Others in the group noted that anchors need to be sufficient for breakaways to work.
- Questions were asked about consistency of this proposal with pending DEIS rules, and there was a discussion on using the ending date of April 15, which is consistent with DEIS, rather than March 31. Commercial fishermen, however, did not support the April 15 date.
- NMFS did not provide direct feedback on this option, but commented on their role in the process, noting it would consider the team's recommendations and discussions along with other alternatives and apply them against the requirement to make a determination under 50 CFR 229.32(g)(2).

Option 2 - Gillnetting prohibited inside the SE right whale critical habitat.

- Area closed to gillnetting inside the SE right whale critical habitat area from November 15 to March 31. For areas outside the right whale critical habitat area, the same general gear requirements as Option 1 would apply.

Discussion points:

- Linking fisheries management to critical habitat boundaries may not be prudent as modifications to critical habitat may occur and habitat issues are different from "take" issues. Creating boundaries based upon where animals are located may be difficult from an enforcement perspective.
- Not enough information to fully evaluate this proposal.
- Fishermen have not found effective whiting fishery outside of critical habitat.

Option 3 – Gillnetting prohibited inside the Mandatory Ship Reporting System (MSRS) area.

- Area closed to gillnetting inside the MSRS area from November 15 to March 31. For areas outside the MSRS area, the same general gear requirements as Option 1 would apply.

Discussion points:

- Allowing gillnet activity outside of the MSRS box may be less risky to right whales than the critical habitat-based proposal.
- The MSRS box has aerial survey coverage and using it would be consistent area of mandatory ship reporting requirement.
- There are other clumps, or "hot spots," of whales outside of the MSRS box.
- Whiting boats are smaller in size, and safety concerns become an issue as the fleet goes further offshore.
- Fishermen have not found effective whiting fishery outside of critical habitat.

Option 4 – Gillnetting prohibited inside an area east of a line drawn at ~81°W longitude from the Georgia/South Carolina border south to 29°N latitude (sightings line).

- Area closed to gillnetting out to ~81°W longitude from November 15 to March 31, with the same general gear requirements as Option 1 in the area east of a line (sightings line) drawn at ~81ºW longitude from the Georgia/South Carolina border south to 29ºN latitude.

Discussion points:

- Sightings line would incorporate additional areas of high concentration whale sightings.
- Have not found effective whiting fishery outside of critical habitat, so new line may provide no additional benefit to fishery.
- Do not know if fish are beyond this sightings line, and thus it may be ineffective in addressing fishery needs.
- If this proposal does not further any fishery needs, some members propose extending restrictions beyond sightings line to include the entire SE U.S. Restricted Area.

Option 5 – Gillnetting prohibited except when using strikenet procedures.

- Area closed to gillnetting from November 15 to March 31 with exception for strikenetting as follows:
    - All nets together
    - Spotter planes
    - Stay with net

Discussion points:

- Difficult to know exact whale location.
- Strikenet technique was not developed for whiting.
- Whiting fishermen present did not believe this was a viable option economically.
- Not enough data or information to evaluate risk to animals or impact on fishery.
- May have more time for gear in the water column.
- Timing and location of movement of schools of whiting is unpredictable. Fishermen need long soaks for effective catches.

Option 6 – Gillnetting prohibited.

- Area closed to gillnetting from November 15 to March 31, no exceptions.

Discussion points:

- Most risk averse option for right whales.
- Socioeconomic impacts on affected fisheries.
- Not comfortable with any gillnetting above 29ºN latitude
    - Calving area
    - Enforcement issues
    - Increased potential for illegal fishing

3. Individual Comments

Members of the Southeast Subgroup and members of the public at the end of the meeting provided general comments that are summarized as follows:

- Industry knows what happened with this calf:
    - Fishermen suspect the entanglement involved 4 7/8" stretched mesh gillnet.
    - Fishermen suspect that enforcement cannot prove a "take."
    - Whiting fishery uses small mesh (less than 3") and has had self-imposed restrictions without a reported incident. No definitive information provided that a whiting gillnet interacted with this whale.
    - Irresponsible fishing caused this incident.
- The effects of the State of Florida's gillnet ban have pushed fishing out.
- Fisheries representatives understood the concerns over whales.
- ALWTRT SE Subgroup members were pleased that fishermen seemed committed to responsible fishing. This particular area has a high standard that must be met with regards to conservation of right whales.

IV. Next Steps

NMFS and the SE subgroup will review the draft report from the meeting prior to the final report being submitted to the full ALWTRT. The ALWTRT would be able to respond or give input, by email or other means, but not via a meeting due to time constraints. Additional comments are welcome throughout this process.

NMFS will then proceed with the rulemaking process. The team will be kept informed of proposed rule(s) being developed, and the proposed rule would be subject to a public comment period and other administrative procedures.